

REMARKS

Claim Rejections 35 U.S.C. § 112.

In response to the art rejection, many of the claims objected to have been canceled. The remaining objected claim 18 has been amended to correct the antecedent basis problem noted by the Examiner.

Claim Rejections 35 U.S.C. § 102.

The claims have been amended in light of the art rejection.

Independent claim 1 now includes the added limitation of a wireless transmitter that transmits a stored current time in a digital fashion to a remote device. Support for this limitation is found, for example, at paragraph [0030], which describes an output circuit 220 that may be a wireless transmitter using, for example, wireless Ethernet, a well known digital transmission technique of machine readable signals.

With respect to claim 1 as amended, the Hayes reference does not teach a time detection system, however, such a time detection system is taught by Kubota. Nevertheless, Kubota appears to show only a digital display visible on the surface of the cassette, noting under the first paragraph under the heading Function:

When the cassette is placed in a reading device, the display on the surface of the cassette, by time displaying device, is detected by a simple detecting means, such as a miniature photoelectric means (e.g., CCD, etc.) or position sensor. The detection signal is transferred to the reproducing device, to reproduce the image signal, as well as the photographing time, as a visible image. Accordingly, manual operation for reproducing the photographing time is not needed, and the reproduced time is correct with little error.

✓ A full copy of the translation of Kubota obtained by the Applicant is attached.

Thus, although Kubota does seem to contemplate automatically recording the image of the time for future reference, Kubota does not teach wireless transmission of machine-readable digital data as may be incorporated into the electronic records of the hospital or the like. Further, the optical reading system of Kubota would practically require incorporation of the reading unit into the cassette reader, whereas the present invention is suitable for later association with the cassette reader not having the need for the precise mechanical alignment needed from an optical system. The ability to retrofit the time reader into existing cassette readers may be key to adoption of the technology.

Krause teaches the wireless transmission of signals from an x-ray detector to an x-ray machine necessary for real-time control of x-ray exposure when the detector is inaccessible in mouth of the patient. In the present invention, neither real of these motivations of real-time control or inaccessibility of the detector are present and the difficulty and expense of wireless communication would therefore not be suggested. Rather the optical reading solution of Kubota would be adopted. The applicants, in distinction, have recognized that short range wireless transmission allows machine readable digital data to be freely interchanged between hospital data systems with a device that can be retrofit to existing hospital equipment.

Claim Rejections 35 U.S.C. § 103.

The only other remaining independent claim 10 now includes the added limitation of providing a detector that is affixed to an outside of a radiation cassette, for example, as a sticker, previously found in claim 11. This feature of the present invention may also be critical to the adoption of the technology, rendering it possible to retrofit a large installed base of cassette equipment in a hospital.

Currently, claims 10 and 11 have been rejected over a combination of Hayes and Scaffer. Hayes which contemplates a specially designed cassette, does not recognize that the detector system may be externally attached such as makes it possible to retrofit existing cassettes. Scaffer teaches what appears to be a personal dosimeter, having a wallet containing three film strips. Applicant does not believe Scaffer's teachings would be fairly combinable with the x-ray film cassette of Hayes, but notes that Scaffer's motivation to provide separate, independently valid detectors teaches away from the present invention where the detector is intended to mirror the exposure of the film.

In light of these amendments, it is believed that claims 1, 4-5, 10,16,18, 20-21, and 36-42 are now in condition for allowance, and allowance is respectfully requested.

Respectfully submitted,

Gary J. Wendt

By: 

Keith M. Baxter
Reg. No. 31,233
Attorney for Applicant
Boyle Fredrickson Newholm Stein & Gratz, S.C.
250 East Wisconsin Avenue, Suite 1030
Milwaukee, WI 53202